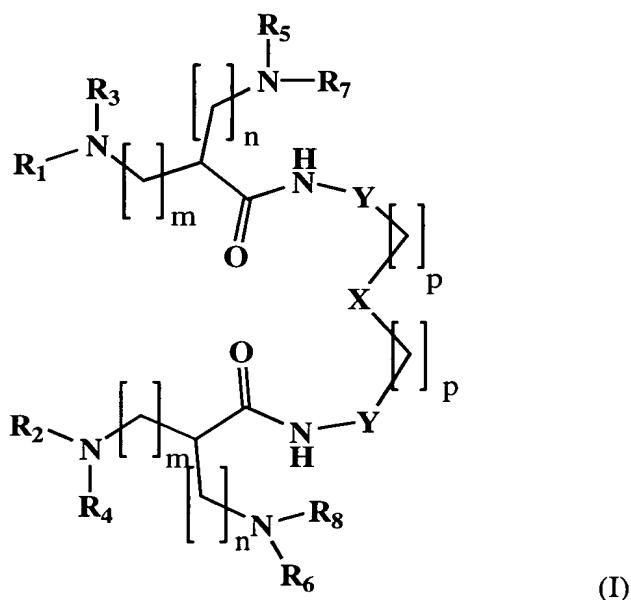


Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended): A diaminoacid-polyamine:peptide based gemini compound having a diaminoacid-polyamine or a diaminoacid-aminoacid-polyamine backbone and conforming to the general structure of formula (I):



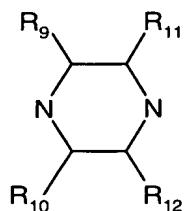
where:

m = 0 to 6;

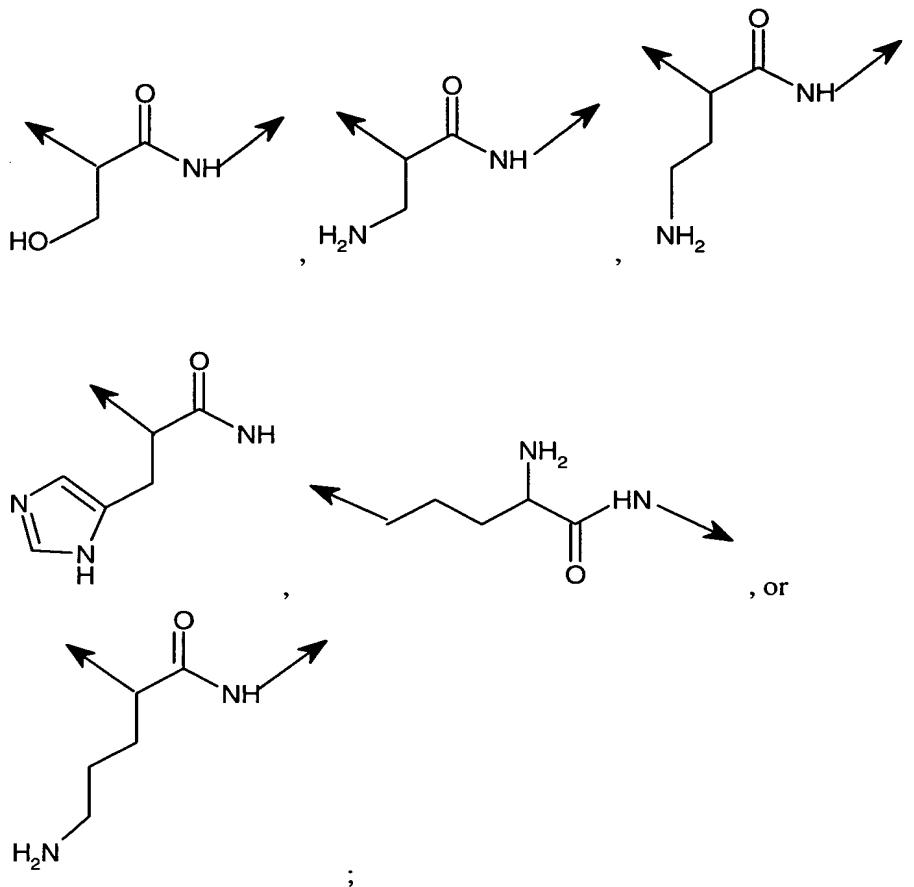
n = 0 to 7;

p = 0 to 6; and where

X = a bond, CH₂, (CH₂)₂, NH(CH₂)_qNH where q = 2 to 6, or



where R₉ to R₁₂, which can be the same or different, are selected from H, O or and C_rH_{2r+1}, where r = 0 1 to 6 with the proviso that when R₉ and R₁₂ are O, or when R₉ and R₁₁ are O, then R₁₀ and R₁₁ or R₁₀ and R₁₂, respectively, are H; and where Y = a bond, CH₂,



and where R₃, R₄, R₅, R₆, R₇ and R₈ are hydrogen and R₁ and R₂ are saturated or unsaturated hydrocarboxyl groups having up to 24 carbon atoms and linked to the diaminoacid-polyamine backbone by an amide bond;

or

where R₃, R₄, R₅ and R₆ are hydrogen, R₁ and R₂ are saturated or unsaturated hydrocarboxyl groups having up to 24 carbon atoms and linked to the diaminoacid-polyamine backbone by an amide bond, and where R₇ and R₈, which may be the same or different, are peptide groups formed from one or more amino acids linked together by amide (CONH) bonds, and further linked to the diaminoacid-polyamine backbone by

amide bonds, in a linear or branched manner, wherein the peptide groups having are represented by the general formula (II):



where the values for p1 and p2, which may be the same or different, are from 0 1 to 5, preferably 1;

and the values for p3 and p4, which may be the same or different, are from 0 to 5, preferably 0;

A1, A3 and A4, which may be the same or different, is an amino acid selected from the group consisting of serine, lysine, ornithine, threonine, histidine, cysteine, arginine and tyrosine; and

A2 is an amino acid selected from the group consisting of lysine, ornithine and histidine; or

a pharmaceutically acceptable salt thereof.-

2. (Currently amended): A compound according to claim 1 wherein that is symmetrical, that is R₁ and R₂ are the same as each other, R₃ and R₄ are the same as each other, R₅ and R₆ are the same as each other, R₇ and R₈ are the same as each other.

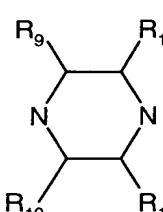
3. (Currently amended): A compound according to ~~claims~~ claim 1 or 2 wherein A1 is lysine, serine or threonine, and A3 and A4 are lysine, ornithine, histidine or arginine.

4. (Currently amended): A compound according to ~~any of claims 1 to 3~~ claim 1 wherein the hydrocarboxyl group is selected from the group consisting of:

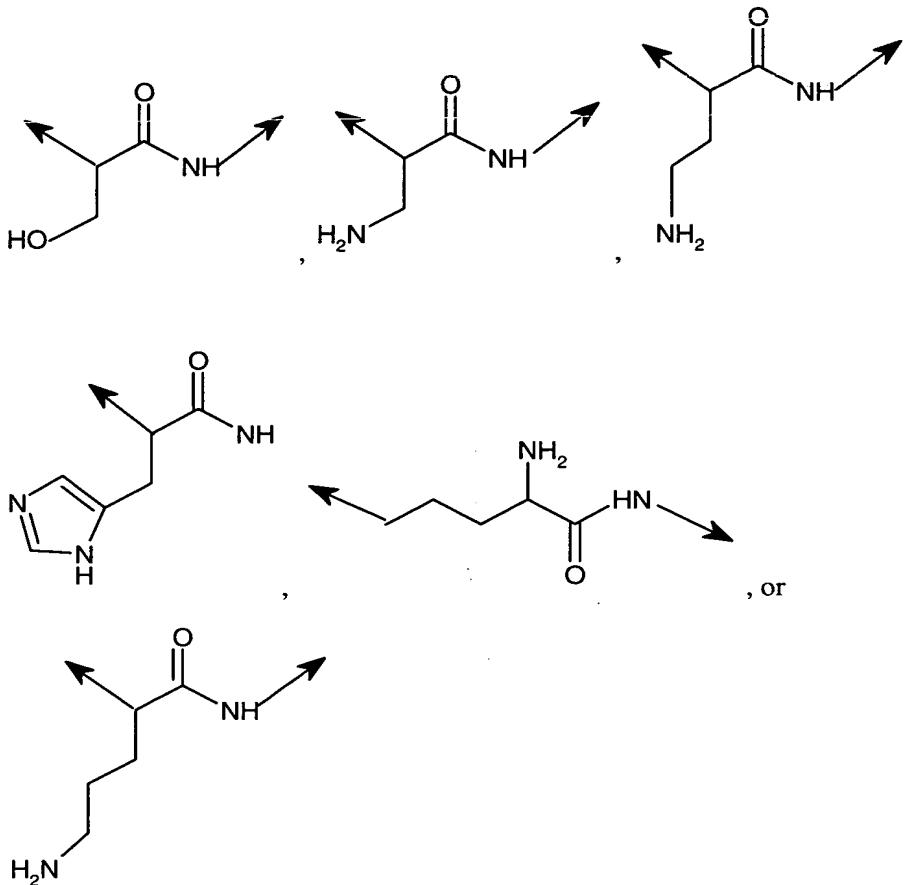
-C(O)(CH₂)₁₀CH₃
-C(O)(CH₂)₁₂CH₃
-C(O)(CH₂)₁₄CH₃
-C(O)(CH₂)₁₆CH₃
-C(O)(CH₂)₁₈CH₃
-C(O)(CH₂)₂₀CH₃
-C(O)(CH₂)₇CH=CH(CH₂)₅CH₃ natural mixture
-C(O)(CH₂)₇CH=CH(CH₂)₇CH₃ natural mixture
-C(O)(CH₂)₇CH=CH(CH₂)₅CH₃ Cis
-C(O)(CH₂)₇CH=CH(CH₂)₇CH₃ Cis
-C(O)(CH₂)₇CH=CH(CH₂)₅CH₃ Trans
-C(O)(CH₂)₇CH=CH(CH₂)₇CH₃ Trans
-C(O)(CH₂)₇CH=CHCH₂CH=CH(CH₂)₄CH₃
-C(O)(CH₂)₇(CH=CHCH₂)₃CH₃
-C(O)(CH₂)₃CH=CH(CH₂CH=CH)₃(CH₂)₄CH₃
-C(O)(CH₂)₇CHCH(CH₂)₇CH₃
-C(O)CHCHOH(CH₂)₂CH₃ or and
-C(O)(CH₂)₂₂CH₃.

5. (Currently amended): A compound according to ~~any one of claims 1 to 4~~
claim 1 where m is 0, n is 2 to 4, X is (CH₂) or (CH₂)₂, Y is a bond and p is 0 to 4.

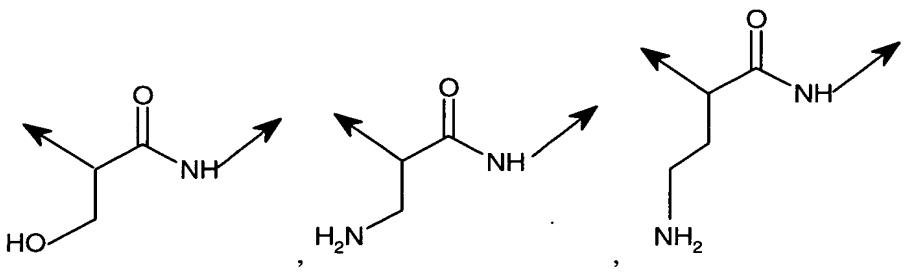
6. (Currently amended): A compound according to ~~any one of claims 1 to 4~~
claim 1 where m is 0, n is 2 to 4, X is NH(CH₂)_qNH, where q is 2 to 5, Y is a bond and
p is 2 to 5.

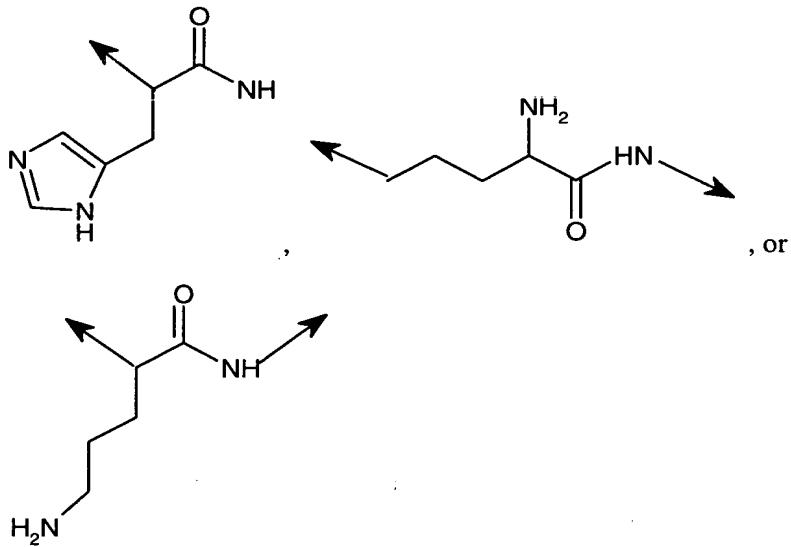
7. (Currently amended): A compound according to ~~any one of claims 1 to 4~~
claim 1 where m is 0, n is 2 to 4, X is  , where R₉, R₁₀, R₁₁ and R₁₂ are all H, Y is a bond and p is 2 to 5.

8. (Currently amended): A compound according to ~~any one of claims 1 to 4~~
claim 1 where m is 0, n is 2 to 4, X is (CH₂) or (CH₂)₂, p is 0 to 4 and Y is

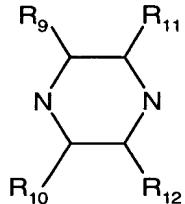


9. (Currently amended): A compound according to any one of claims 1 to 4 claim 1 where m is 0, n is 2 to 4, X is NH(CH₂)_qNH, where q is 2 to 5, p is 2 to 5 and Y is

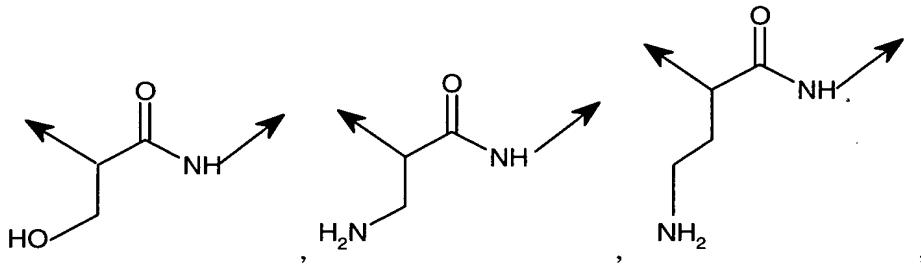


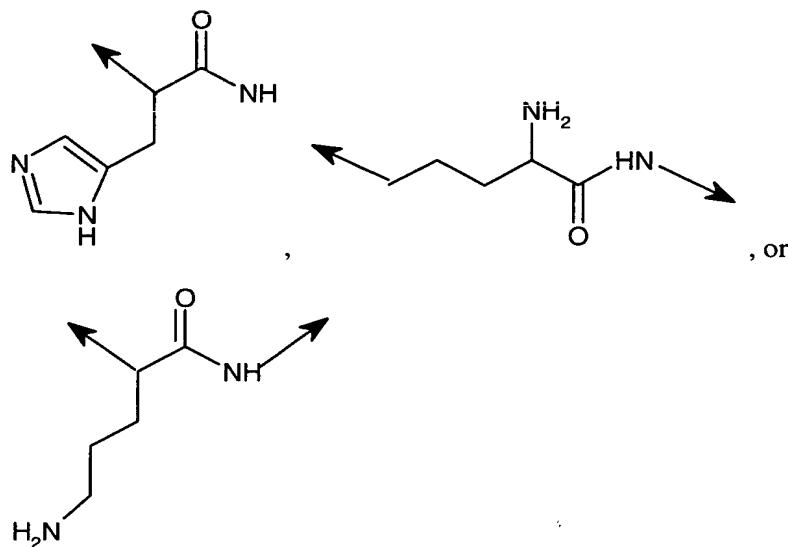


10. (Currently amended): A compound according to ~~any one of claims 1 to 4~~
claim 1 where m is 0, n is 2 to 4, X is

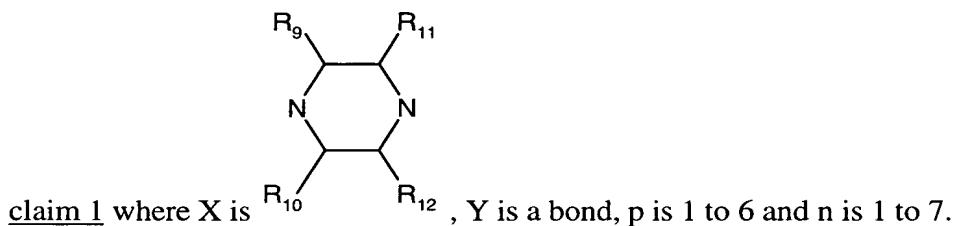


, where R₉, R₁₀, R₁₁ and R₁₂ are all H, p is 2 to 5 and Y is

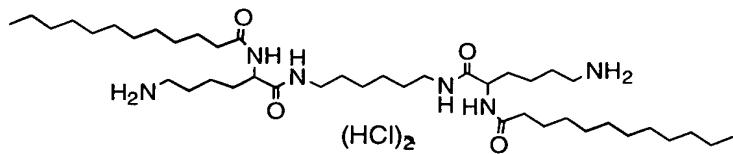




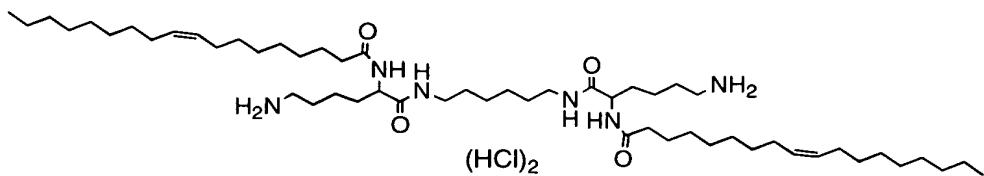
11. (Currently amended): A compound according to ~~any one of claims 1 to 4~~



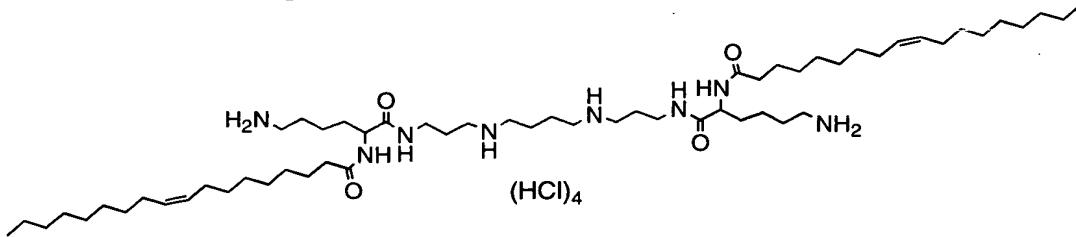
12. (Currently amended): ~~The compound GSN-11 or~~ A salt of the compound of Claim 1 which is represented by the formula:



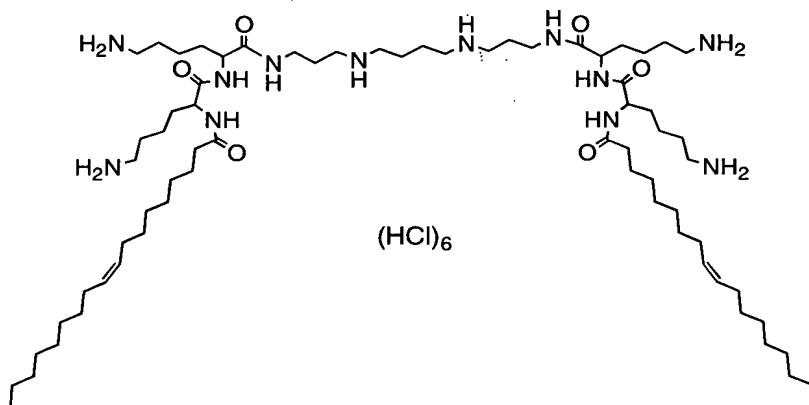
13. (Currently amended): ~~The compound GSN-14 or~~ A salt of the compound of Claim 1 which is represented by the formula:



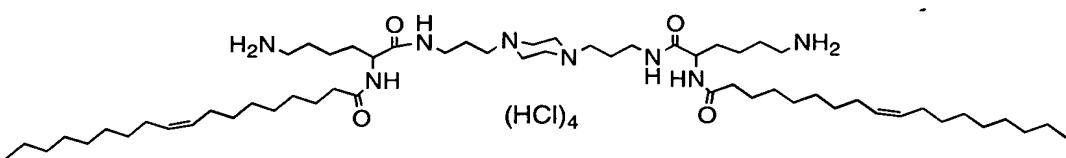
14. (Currently amended): The compound GSC 102 of A salt of the compound of Claim 1 which is represented by the formula:



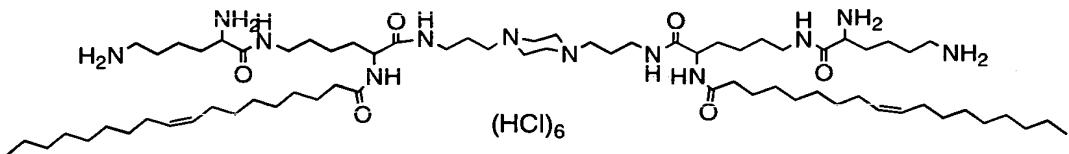
15. (Currently amended): ~~The compound GSC 157 A salt of the compound of~~
Claim 1 which is represented by the formula:



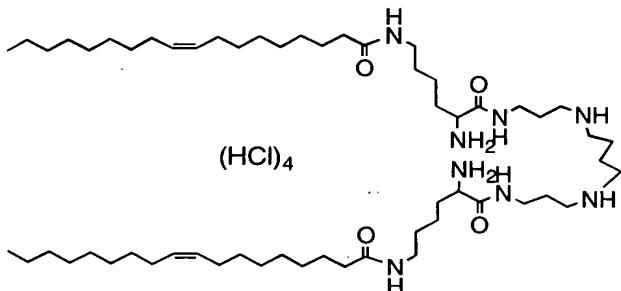
16. (Currently amended): The compound GSC170 or A salt of the compound of Claim 1 which is represented by the formula:



17. (Currently amended): The compound GSC 184 or A salt of the compound of Claim 1 which is represented by the formula:



18. (Currently amended): ~~The compound GSC101 of A salt of the compound of Claim 1 which is represented by the formula:~~



19. (canceled):

20. (Currently amended): ~~The use method of a diaminoacid-polyamine-peptide-based gemini compound according to claim 19 31 wherein the compound is used in combination with one or more supplements selected from the group consisting of further includes a supplement selected from the group consisting of:~~
~~(i) a neutral carrier; or
(ii) a complexing reagent.~~

21. (Currently amended): ~~The use method according to claim 20 wherein the neutral carrier is dioleyl phosphatidylethanolamine (DOPE).~~

22. (canceled):

23. (Currently amended): ~~The use method according to claim 20 wherein the complexing reagent is a peptide comprising mainly basic amino acids.~~

24. (Currently amended): The ~~use~~ method according to claim 23 wherein the peptide consists of basic amino acids.

25. (Currently amended): The ~~use~~ method according to claim 23 or 24 wherein the basic amino acids are selected from the group consisting of lysine, ornithine, and arginine.

26. (canceled):

27. (canceled):

28. (canceled):

29. (canceled):

30. (Original): A process for preparing diaminoacid-polyamine-based gemini compounds of claim 1 which process comprises the coupling of a succinimidate ester of a diaminoacid linked to its α or terminal amino group to an hydrocarboxyl chain to a polyamine linker using potassium carbonate as a base in a mixture of tetrahydrofuran and water as solvents.

31. (new): A method of enabling transfection of DNA or RNA or analogs thereof comprising the step of administering an effective amount of a compound of Claim 1, or a pharmaceutically acceptable salt thereof, to a culture to facilitate transfer of the DNA or RNA or analogs thereof into a eukaryotic or prokaryotic cell.

32. (new): A method of facilitating transfer of a polynucleotide or anti-infective compound into a prokaryotic or eukaryotic organism comprising the step of administering an effective amount of a compound of Claim 1 or a pharmaceutically acceptable salt thereof to the organism to treat infection.